



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0620; Project Identifier 2019-SW-074-AD]

RIN 2120-AA64

Airworthiness Directives; Hélicoptères Guimbal Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for Hélicoptères Guimbal (HG) Model Cabri G2 helicopters with certain part-numbered aluminum cooling fans (cooling fan) installed. This proposed AD was prompted by reports of two occurrences of in-flight shutdowns due to a crack and subsequent failure of the cooling fan. This proposed AD would require removing certain part-numbered cooling fans from service, or modifying certain part-numbered cooling fans before exceeding a certain total hours time-in-service (TIS), and installing newly designed cooling fans. This proposed AD would also prohibit installing any affected cooling fan on any helicopter. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Hélicoptères Guimbal, Basile Ginel, 1070, rue du Lieutenant Parayre, Aéroport d'Aix-en-Provence, 13290 Les Milles, France; telephone 33-04-42-39-10-88; email basile.ginel@guimbal.com; web <https://www.guimbal.com>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0620; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0620; Project Identifier 2019-SW-074-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov. Any commentary

that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2014-0038, dated February 14, 2014 (EASA AD 2014-0038), to correct an unsafe condition for Hélicoptères Guimbal Model Cabri G2 helicopters. EASA advises of a report of an in-flight engine shutdown caused by a failure of the cooling fan. EASA further advises the failure of the cooling fan was caused by a crack in the fan external ring. After EASA AD 2014-0038 was issued, a second occurrence was reported of an in-flight engine shutdown caused by failure of the cooling fan, which was determined to be caused by a crack on the cooling fan front flange.

Accordingly, EASA issued EASA AD 2014-0196, dated September 2, 2014 (EASA AD 2014-0196), which retained the modification requirements of EASA AD 2014-0038 and required repetitive inspections of the engine cooling fan front flange and corrective actions depending on the findings. After EASA issued EASA AD 2014-0196, further analysis determined the crack was caused by the engine start/stop (ESS) cycles. Therefore, EASA superseded EASA AD 2014-0196 with EASA AD 2016-0033, dated February 24, 2016 (EASA AD 2016-0033), which retained the inspection and modification requirements of EASA AD 2014-0196 and depending on the findings, required replacement of the affected part pending approval of the newly designed part.

After EASA issued EASA AD 2016-0033, HG developed a newly designed engine cooling fan part number (P/N) G52-04-101, which consists of composite materials having improved structural strength. Accordingly, EASA superseded EASA AD 2016-0033 with EASA AD 2017-0039, dated February 24, 2017 (EASA AD 2017-0039), which retained the requirements of EASA AD 2016-0033 and required replacing the

affected cooling fans with the newly designed cooling fan which terminates the repetitive inspections from EASA AD 2016-0033.

Since EASA issued EASA AD 2017-0039, HG issued a revision to its service bulletin requiring a life limit requirement for the replacement of the affected cooling fans. Accordingly, EASA superseded EASA AD 2017-0039 with EASA AD 2019-0187, dated July 31, 2019, and corrected August 2, 2019 (EASA AD 2019-0187). EASA AD 2019-0187 retains some of the requirements in EASA AD 2017-0039 and requires a new compliance time and life limit for the replacement of the affected part. EASA AD 2019-0187 also removes the modification and inspection requirements which are covered by EASA AD 2019-0025, dated February 4, 2019.

The unsafe condition described in the EASA ADs, if not addressed, could result in failure of the cooling fan and subsequent engine in-flight shut-down and reduced control of the helicopter.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type designs.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Guimbal Service Bulletin SB 16-021, Revision E, dated August 27, 2019. This service information specifies instructions for retrofitting the cooling fan with the new front flange, aft ring, and 24-hole pulley. This service information also specifies that upon completion of all the required actions, the cooling

fan assembly P/N G52-00-000, P/N G52-00-001 and P/N G52-04-100 become P/N G52-04-101.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Guimbal Service Bulletin SB 16-021, Revision D, dated May 20, 2019, which is not incorporated by reference, and which specifies procedures for accessing the cooling fan and removing it from service; modifying, applying adhesive and torquing the rear flange; installing the improved cooling fan, and additional actions.

Proposed AD Requirements in this NPRM

This proposed AD would require removing from service any affected part-numbered cooling fan. An alternative, for certain part-numbered cooling fans, modifying the cooling fan before it exceeds a certain total hours TIS.

Differences between this Proposed AD and EASA AD 2019-0187

EASA AD 2019-0187 allows certain cooling fans with certain total hours TIS to be retrofitted before exceeding their life limit, whereas this proposed AD would require removing these cooling fans from service or as an alternate to removing them from service, modifying the cooling fan before exceeding the total hours TIS. EASA AD 2019-0187 allows a compliance time in months TIS to replace certain part-numbered cooling fans, whereas this proposed AD would only allow hours TIS.

EASA AD 2019-0187 retains the compliance time of March 10, 2017, which is the effective date of EASA AD 2017-0039. This proposed AD would require compliance within the effective date of this AD. The FAA has determined that these compliance times are adequate to address the identified unsafe condition.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 32 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Removing the affected cooling fan from service and installing the newly designed cooling fan would take about 16 work-hours and parts would cost about \$4,600 for an estimated cost of \$5,960 per replacement and \$190,720 for the U.S. fleet.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

Hélicoptères Guimbal: Docket No. FAA-2021-0620; Project Identifier 2019-SW-074-AD.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Hélicoptères Guimbal (HG) Model Cabri G2 helicopters, certificated in any category, the following aluminum cooling fan (cooling fan) part number (P/N) installed:

(1) P/N G52-00-000,

(2) P/N G52-00-001 or P/N G52-04-100, if it is or has previously been mounted on a 12-hole engine pulley P/N G52-10-100 or P/N G52-10-101.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 7100, Powerplant System.

(e) Unsafe Condition

This AD was prompted by reports of in-flight engine shutdowns due to a crack and subsequent failure of the cooling fan. The FAA is issuing this AD to prevent failure of the cooling fan. This condition, if not addressed, could result in an in-flight engine shut-down and loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For Model Cabri G2 helicopters with cooling fan P/N G52-00-000 installed, within 150 hours time-in-service (TIS) after the effective date of this AD:

(i) Remove the cooling fan from service by following the Required Actions, Cooling Fan Removal, paragraphs a) through g), of Guimbal Service Bulletin SB 16-021, Revision E, dated August 27, 2019 (SB 16-021 Rev E), except you are not required to discard any parts.

(ii) Install the improved cooling fan P/N G52-04-101 by following the Required Actions, Cooling Fan Installation, paragraphs a) through j), of SB 16-021 Rev E.

(2) For Model Cabri G2 helicopters with a cooling fan P/N G52-00-001 or P/N G52-04-100 that is mounted or was previously mounted on a 12-hole engine pulley P/N G52-10-100 or P/N G52-10-101, and with 1,500 or more total hours TIS, since first installation on a helicopter, within 150 hours TIS after the effective date of this AD:

(i) Remove the cooling fan from service by following the Required Actions, Cooling Fan Removal, paragraphs a) through g), of SB 16-021 Rev E, except you are not required to discard any parts, or remove the cooling fan by following the Required Actions, Cooling Fan Removal, paragraphs a) through g), of SB 16-021 Rev E and modify the cooling fan by following the Required Actions, Cooling Fan Retrofit, paragraphs a) through h) of SB 16-021 Rev E.

(ii) Install the improved cooling fan P/N G52-04-101 by following the Required Actions, Cooling Fan Installation, paragraphs a) through j), of SB 16-021 Rev E.

(3) For Model Cabri G2 helicopters with a cooling fan P/N G52-00-001 or P/N G52-04-100 that is mounted or was previously mounted on a 12-hole engine pulley P/N G52-10-100 or P/N G52-10-101 and with 500 total hours TIS but with less than 1,500 total hours TIS, since first installation on a helicopter, within 500 hours TIS after the effective date of this AD, perform the actions required by paragraphs (g)(2)(i) and (ii) of this AD.

(4) For Model Cabri G2 helicopters with a cooling fan P/N G52-00-001 or P/N G52-04-100 that is mounted or was previously mounted on a 12-hole engine pulley P/N G52-10-100 or P/N G52-10-101 and with less than 500 total hours TIS since first installation on a helicopter, within 1,000 hours TIS after the effective date of this AD, perform the actions required by paragraphs (g)(2)(i) and (ii) of this AD.

(5) As of the effective date of this AD, do not install any cooling fan listed in paragraph (c) of this AD on any helicopter.

(h) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Guimbal Service Bulletin SB 16-021, Revision D, dated May 20, 2019.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person

identified in paragraph (j)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

(2) For service information identified in this AD, contact Hélicoptères Guimbal, Basile Ginel, 1070, rue du Lieutenant Parayre, Aéroport d'Aix-en-Provence, 13290 Les Milles, France; telephone 33-04-42-39-10-88; email basile.ginel@guimbal.com; web <https://www.guimbal.com>. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2019-0187, dated July 31, 2019 and corrected August 2, 2019. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2021-0620.

Issued on July 30, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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